Claims

What is claimed is:

1. An article for cleaning recessed surfaces, comprising:

a shaft having a first end opposite a second end;

a cleaning head assembly at said first end of said shaft, said cleaning head assembly including a movable strip;

an actuator at said second end of said shaft; and

a connector coupling said cleaning head to said actuator to move said movable strip during positional change of said actuator.

2. The article of claim 1, wherein said cleaning head assembly further includes a socket to attach said cleaning head assembly to said shaft, said socket having attachment to a frame that includes a projection to direct said movable strip toward a recessed surface.

3. The article of claim 2, wherein said projection further includes a first groove opposite a second groove, said movable strip located adjacent to said first groove and said second groove while moving during positional change of said actuator.

4. The article of claim 3, wherein said cleaning head assembly further includes a slider and a retainer, said movable strip providing connection between said slider and said retainer, said slider being movable in said first groove, said retainer held to said frame by a motion restrictor to limit movement of said retainer in said second groove.

5. The article of claim 4, wherein said motion restrictor is a control spring.

6. The article of claim 4, wherein said movable strip includes a carrier belt and a cleaning cover.

7. The article of claim 6, including means for removable attachment of said cleaning cover to said carrier belt.

8. The article of claim 7 wherein said means for removable attachment are selected

from the group consisting of adhesives, mechanical fasteners and interference fasteners.

9. The article of claim 1, wherein said actuator includes a stationary part and an adjustable part having a first position and a second position, said adjustable part coupled to said connector to move said movable strip during positional change of said adjustable part between said first position and said second position.

10. The article of claim 9, wherein said stationary part is a grip and said adjustable part is a handle engaging said grip.

11. The article of claim 10, wherein said grip includes a guide track for said handle to facilitate movement between said first position and said second position.

12. The article of claim 1, wherein said actuator includes a stationary part and an adjustable part having a first position and a second position, said stationary part mounted securely at said second end of said shaft that passes through said adjustable part, said connector coupled to said adjustable part to move said movable strip during positional change of said adjustable part between said first position and said second position.

13. The article of claim 12, wherein said adjustable part is shaped as a winged collar.

14. An article for cleaning recessed surfaces, comprising:

a shaft having a first end opposite a second end;

a cleaning head assembly at said first end of said shaft, said cleaning head assembly including a projection having a movable strip adjacent thereto;

an actuator at said second end of said shaft; and

a connector coupling said cleaning head to said actuator to move said movable strip during positional change of said actuator.

15. The article of claim 14, wherein said projection includes a probe insert contacting a projection socket for pivotal movement therewith.

16. The article of claim 15, wherein said movable strip holds said probe insert against at least a portion of said projection socket, said probe insert including an insert bore and at least one protrusion, said projection socket having a socket bore and at least one indent formed therein.

17. The article of claim 16, said projection further includes a junction pin residing between said insert bore and said socket bore, said probe insert contacting said projection socket while said at least one protrusion engages said at least one indent to provide a hub for said pivotal movement.

18. The article of claim 14, wherein said movable strip includes a carrier belt and a cleaning cover.

19. The article of claim 18, including means for removable attachment of said cleaning cover to said carrier belt.

20. The article of claim 19 wherein said means for removable attachment is selected from the group consisting of adhesives, mechanical fasteners and interference fasteners.

21. An applicator for applying a cleaning cover to a carrier belt, said applicator comprising:

a base

a first cantilever arm extending from said base;

a second cantilever arm extending from said base, there being a spaced-apart relationship of said first cantilever arm from said second cantilever arm, each said first and said second cantilever arms including a biasing surface, said first and said second cantilever arms adapted to engage a cleaning cover that is transferable from said applicator to a carrier belt aided by force applied to said biasing surface.

22. An article for cleaning a recessed optical fiber surface comprising:

a shaft having a first end opposite a second end;

a cleaning head assembly comprising:

a socket for connection to said first end of said shaft;

a frame having a closed end and an open end, said closed end attached to said socket, said frame further including a first flange, having a first channel and a first ledge, and a second flange having a second channel and a second ledge;

a projection attached to said closed end of said frame, between said first flange and said second flange, said projection including a probe tip extending from said open end of said frame for placement adjacent a recessed optical fiber surface, said projection having, along its length, a first groove opposite a second groove;

a slider having a connecting element, and a first extension opposite a second extension, said slider further having a first runner attached thereto to move in said first groove, said runner including a tab, said first extension being slidable in said first channel and said second extension being slidable in said second channel;

a retainer having a first shoulder supported for movement by said first ledge and a second shoulder supported for movement by said second ledge, said retainer having a second runner attached thereto to move in said second groove of said projection, said second runner including a tang;

a motion restrictor attached to said frame and to said retainer to limit movement of said retainer to a portion of said second groove; and

a movable strip including a slit positioned over said tab and a slot positioned over said tang, said movable strip passing over said probe tip for contact with an optical fiber surface and to provide connection between said slider and said retainer;

an actuator including a hole to receive said second end of said shaft, said actuator further including a stationary part and an adjustable part slidingly engaging said stationary part between a first position and a second position; and

a connector coupling said slider of said cleaning head assembly from said connecting element to said adjustable part of said actuator to move said slider, said movable strip, and said retainer during positional change of said actuator to move said adjustable part from said first position to said second position with displacement of said motion restrictor, which thereafter retracts to return said adjustable part to said first position, said movable strip executing reciprocating movement during repeated operation of said actuator between said first position and said second position to cause a rubbing action of said movable strip against an optical fiber surface.

23. The article of claim 22, wherein said movable strip includes a carrier belt and a cleaning cover.

24. The article of claim 23, including means for removable attachment of said cleaning cover to said carrier belt.

25. The article of claim 24, wherein said means for removable attachment is selected from the group consisting of adhesives, mechanical fasteners and interference fasteners.

26. A process for cleaning a recessed surface, comprising the steps of:

providing an article for cleaning a recessed surface comprising:

a shaft having a first end opposite a second end;

a cleaning head assembly at said first end of said shaft, said cleaning head assembly including a movable strip of buffing material;

an actuator at said second end of said shaft; and

a connector coupling said cleaning head assembly to said actuator to move said movable strip during positional change of said actuator;

inserting said cleaning head assembly and at least a portion of said shaft into an opening in a structure containing at least one recessed surface;

contacting said movable strip with the recessed surface; and

making repeated positional change of said actuator to cause reciprocation of said movable strip to clean the recessed surface.